**United States Environmental Protection Agency**
**Region 1 - EPA New England**
**5 Post Office Square - Suite 100**
**Boston, MA 02109-3912**

**Subj:** Inspection Report
Middlebury WWTF (Collection System)

**From:** Andrew Spejewski

**To:** File

## I. Facility Information

***A. Facility Name:*** Middlebury WWTF (Collection System)

*B. Facility Location*: 243 Industrial Ave
Middlebury, VT 05753

*C. Facility Contacts:* Bob Wells, Chief Operator
As above

*D. NPDES ID Number:* VT0100188

## II. Background Information

*A. Date and time of inspection:*
*Facility entrance:* July 14, 2015, 8:30AM
*Facility exit:* July 14, 2015, 4:30 PM

*B. Weather Conditions:* clear, dry

*C. US EPA Representative(s):* Andrew Spejewski

*D. State/Local Representative(s):* Liz Dickson, VT DEC

*E. Federally Enforceable Requirements Covered During the Inspection:* SSO and maintenance requirements in NPDES discharge permit

*F. Previous Enforcement Actions:* none known

## III. Type and Purpose of Inspection

An inspection of the sanitary sewer collection system, focusing on overflows.

## IV. Facility Description

See below

## V. Inspection

**Schedule:**
By pre-arrangement, Mr. Spejewski arrived at the Town Wastewater Treatment Plant, and met Mr. Wells and Dan Werner. Mr. Spejewski presented his credentials and explained the purpose of the inspection. Liz Dickson arrived soon after and joined the inspection.
Mr. Spejewski, Ms. Dickson, Mr.Wells and Mr. Warner met in the offices of the Treatment Plant for several hours, then toured several pump stations. At the conclusion of the tour, Mr. Spejewski thanked them for their time and left the site.

Information below is from statements by Mr. Wells or Mr. Warner, except where otherwise noted.

**Organization:**
The Town Selectmen act as a Wastewater Committee. The Public Works Department (headed by Dan Werner) includes the Wastewater Department (along with the (drinking) Water and Highway Departments). The Wastewater Department (Bob Wells) runs the treatment plant and the sanitary collection system. Major repairs are done by the Highway Department or contractors.

The Wastewater Department is five full-time staff (including Mr. Wells). Annual budget is about $2.5 million. The plant is staffed seven days a week, but only a few hours on the weekend days. Nights and the rest of the weekends do have a staffer on-call.

Capital budgeting is done on the level of the DPW as a whole.

**System**
The collection system drains the Town of Middlebury, Middlebury College, and a few blocks of the Town of Waybridge. The Town population is about 6,000, up to around 8,000 including college students. There are also several industries in town, including a brewery, dual cider making facilities, and others.
The treatment plant averages just under 1 million gallons per day.

The system is primarily owned by the Town of Middlebury. The Town of Waybridge owns the pipes that drain to the Middlebury system; there is a Prudential Committee to manage this area. Town personnel stated that Middlebury College owns some pump stations. However, they could not immediately identify exactly which stations were

owned by the College, nor could they immediately state what sewer lines, if any, the College owns.

There are no catchbasins or other storm drains connected to the sanitary sewer. "Combined Sewer Overflows" are only due to infiltration and inflow, according to Town personnel. The Town does allow sump pumps to be tied into the sanitary sewer system, if there is not alternative. According to personnel, the Town has been working to disconnect sump pumps, but admitted they have not always been very strict, wanting to maintain good relations with residents.

It was unclear if there ever were any catchbasins or storm drains connected to sanitary. Most of the 'CSO' projects were dealing with modernizing areas where, for instance, sanitary lines from homes were connected to a collector line that discharged to the river.

**Maps**

There is a large paper map of the sanitary sewer system on the wall in the office, but this is mostly just a demonstration prop for tours. Day-to-day, paper maps are used. These maps were mostly developed in the 1960s. A GIS consultant working for the Town has created a GIS map; this map apparently is not generally used by DPW.

The paper maps occasionally identify pipe material, but not always, and do not typically include age information.

The maps are at points incomplete – at times Mr. Wells mentioned pipes that it was not known where their upstream end was or how they terminated.

**Capital Investment**

The Town put out bonds several years ago for a $250,000 per year capital improvement plan, coming to an end this year. Recently a major siphon under Otter Creek was replaced (taking advantage of a project to run a new gas line under the Creek to reduce costs for the siphon).

No other major projects have been undertaken, mostly just pipe repairs and replacements. There is no overall plan to target sewer repair/replacement. To date the Town has focused more heavily on drinking water pipe repair, and has generally only done sanitary pipe work where drinking water work or road work was already planned (taking advantage of the excavating that was being done). Mr. Werner thought that the Town was now ready to begin addressing sanitary sewer issues.

The Town is planning some sanitary sewer work in conjunction with a railroad bridge replacement project downtown.

**Routine Maintenance**

There is no asset management system covering sanitary sewers.

Each year, a contractor comes in for cleaning sanitary lines. Usually, the lines are TVed in association with cleaning.
Some areas are cleaned every year, as well as rotating through different areas each year. Personnel thought in ten years some areas had been covered more than once (aside from the areas cleaned each year). Personnel admitted they had not gone back to double check whether any areas had been missed, although they stated this was something they wanted to do.

In 2010 and 2013 the Town hired Aldridge and Elliot to use an innovative new technology to clean a force main using 'ice pigging' where a bolus of ice was sent through the line to clean it, using the existing pump pressure. A poster presentation on the innovative technology was present in the offices. Town personnel stated they thought the cleaning was very effective.

Pump Stations are inspected 3 times per week. There is a logbook of run time for each station; for stations on SCADA, this information is just copied from the SCADA system at the treatment plant.

There are separate logbooks (at the treatment plant) for pump station maintenance.

Generators are under a yearly maintenance contract. Once per week, they start automatically under load.

Town personnel could not recall the last time towed generators were tested.

Reactive Maintenance:
**Complaints**
Calls of complaints could go to the Town Hall, the DPW or the treatment plant; generally the Town tries to direct calls to the treatment plant. The treatment plant has an answering machine and personnel will call back (whoever is on duty). Complaints or issues are not usually logged.

Backups are dealt with either by a Town-owned rodder, or by calling in a contractor with a vac truck or jetter.

**SSOs**
MS asked if there have been any overflows not at pump stations. A spill was recalled due to work being done on a natural gas line. Mr. Wells said he asked the Cider producing facility to limit flow until repairs could be made, to limit the overflow.

MS asked if there were any hot spots for issues. Mr. Wells noted that Green Peppers, a restaurant occasionally has grease blockages in the lateral from the building to the town line; the owner will jet the lateral, using the Town manhole for access. Another Indian restaurant cleans their lateral regularly, too.

A soap maker caused regular issues in the sewer, and the town billed him for yearly cleaning of the line near his facility. Since moving facilities with a settling tank in the new one, there have been no or few issues.

Mr. Wells was unaware of any FOG program. A Food Discharge permit is required, which specifies grease trap cleaning, but Mr. Wells did not know of anyone doing inspections to verify. He noted that Health Department activities are on a state level in Vermont.

**Wet Weather**
In wet weather, the treatment plant goes into a faster mode (earlier decant, adjusting times, stop running filter presses). They also try and pump down wet wells at pump stations if a storm is coming.

**Flow Gauging**
Flow is primarily monitored by flow gauges at the treatment plant, and by monitoring pump activity and wet well levels at pump stations, through a SCADA system that reports to computers at the treatment plant (not all stations have SCADA, but all those which regularly overflow do). Because the overflow depth is known for all stations, presence or absence of overflow is indicated by wet well levels. Overflow blocks are still in place and checked, but according to the Town, they have never given different results than the SCADA.

The Town has commissioned two Infiltration/Inflow reports, one with a June 2013 draft and one currently underway and expected to be completed this year.

** END **